79/186364 59/18630

5040

# PATENT COOPERATION TREATY

# **PCT**

REC'D 0.1 MAR 2001

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

16

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notifi	cation of Transmittal of International	
1063			Examination Report (Form PCT/IPEA/416)	
International application No.	International filing date (day/m	nonth/year)	Priority date (day/month/year)	
PCT/IL99/00504	16 SEPTEMBER 1999		17 SEPTEMBER 1998	
International Patent Classification (IPC IPC(7): G06F 12/14 and US Cl.: 7	or national classification and IPC 13/200	C		
Applicant REDLER, YESHAYAHU				
Examining Authority and to the REPORT consists of	a total of sheets.	ets of the desc	cription, claims and/or drawings which have	
been amended and are (see Rule 70.16 and Se	the basis for this report and/or shection 607 of the Administrative	ieets containir	ig reculications made before this Additionly	
These annexes consist of a				
3. This report contains indicati	ons relating to the following i	tems:	•	
I 🔀 Basis of the re	port			
II Priority				
1 1				
III Non-establishment of report with regard to novelty, inventive step or industrial applicability				
IV Lack of unity of invention				
V X Reasoned staten citations and ex	nent under Article 35(2) with replanations supporting such state	gard to novelt ment	ty, inventive step or industrial applicability;	
VI Certain documer	nts cited			
VII Certain defects i	n the international application			
\	ions on the international applica	tion		
VIII Certain observat	ions on the international approve			
	· ·			
İ				
Date of submission of the demand	Da	te of completion	on of this report	
13 APRIL 2000		01 DECEMB	ER 2000	
Name and mailing address of the IPI	EA/US Au	thorized office	·	
Commissioner of Patents and Tr	ademarks	Robert W. Be	eausoliel Ir leggytanod	
Box PCT Washington, D.C. 20231		•••		
Facsimile No. (703) 305-3718 Telephone No. (703) 308-7090			(703) 308-7090	

International application No.

PCT/IL99/00504

I.	Ba	asis of	f the repor	·t				
1 1	M.Feb	***************************************	d to the elem	ents of the interna	ational application:*			
1. T	~~ —	-			originally filed			
ļ	닉		lescription:		· originally mod			
Į	X	uie u	escription.	(See Attached)				, as originally filed
		page	s	(000 1111111111111111111111111111111111				, filed with the demand
		page	s			filed with the	letter of	, med with the demand
		page	s			, med with the	ictici oi	
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-	_	page	s	(See Attached)				, as originally filed
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		page	s					, filed with the demand
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-	_		· ·					
Ĺ	X	ine a	lrawings:	(See Attached)				, as originally filed
		pages	S			filed with the le	etter of	, filed with the demand
		pages	s		, ,	ined with the h	etter or	
Γ	x	the se	eauence list	ting part of the d	description:			
L	لث							, as originally filed
								, filed with the demand
		pages	s		, , i	filed with the le	etter of	
	the i	interna se elen	itional application applicatio	cation was filed, uvailable or furnish	unless otherwise in hed to this Authori	ndicated under the ity in the following	is item. ng language	hority in the language in which is:
L		the la	inguage of	a translation fu	imished for the p	ourposes of inte	rnational search (ur	nder Rule 23.1(b)).
		the la	inguage of	publication of	the international	application (un	nder Rule 48.3(b)).	
		the land	~ ~	ne translation fur	nished for the purp	ooses of internation	onal preliminary exam	nination (under Rules 55.2 and/
3.	pre	limina	ry examina	tion was carried	l out on the basis	of the sequenc		application, the international
L		conta	ined in the	international a	pplication in pri	nted form.		
Γ	$\neg$	filed	together w	ith the internati	ional application	in computer re	adable form.	
Ī		furnis	shed subsec	quently to this A	Authority in writ	ten form.		
- f		furnis	shed-subsec	quently to this-A	Authority_in_com	puter_readable	form.	
Ī		The s	statement th ational app	at the subsequen lication as filed	ntly furnished wri has been furnishe	tten sequence li ed.	sting does not go bey	yond the disclosure in the
			tatement tha furnished.	t the information	recorded in comp	outer readable for	rm is identical to the	writen sequence listing has
4.[	x	The a	amendment	ts have resulted	in the cancellat	ion of:		
		$\mathbf{x}$	the descri	ption, pages	NONE			
		X	the claims		23			
		띡		ngs, sheets <del>/fig</del>	NONE	<del></del>		
ا ع	$\overline{}$	<u>ت</u>		_		dmonto had sat 1	noon mada sissa Meser	have been considered to a
5.	Ш				some of) the amen indicated in the St			have been considered to go
i	in th	acemer	nt sheets whi ort as "orig	ch have been furn	nished to the receive	ing Office in respo	onse to an invitation un	nder Article 14 are referred to in amendments (Rules 70.16
			•	t containing such	h amendments mu	si be referred to	under item 1 and an	nexed to this report.

International application No.

PCT/IL99/00504

citations and explanations supporting	such stateme	rd to novelty, inventive step or industrial applicabi	
. statement			
Novelty (N)	Claims	1, 12-15, 22	YI
	Claims	NONE	N
Inventive Step (IS)	Claims	1, 12-15, 22	_ Y!
•	Claims	NONE	N
Industrial Applicability (IA)	Claims	1, 12-15, 22	<b>Y</b>
mudsitiat Applicability (171)	Claims	NONE	N
	Cluthins		• •
citations and explanations (Rule 7 Claims 1, 12-15 and 22 meet the criteria set suggest a secure keyboard single integrated e Claims 2-11 and 16-21 have been deleted.	out in PCT Arti	icle 33(2)-(4), because the prior art does not teach or fairly without removable media.	-
NONE	····		
		·	

International application No.

PCT/IL99/00504

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

#### I. BASIS OF REPORT:

This report has been drawn on the basis of the description, page(s) 1-19, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the claims, page(s) NONE, as originally filed.

page(s) NONE, as amended under Article 19.

page(s) NONE, filed with the demand.

and additional amendments:

Claim PAGES 20-22, filed with the letter of 01 December 2000

This report has been drawn on the basis of the drawings, page(s) 1-8, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the sequence listing part of the description: page(s) NONE, as originally filed.
pages(s) NONE, filed with the demand.
and additional amendments:
NONE

4

CLAIMS:

1. A secure data entry peripheral device in a computer system, said device comprising:

means for at least one of entry, collection and reading of data information;

controller means for encoding said data information for presentation to the computer system, and

means associated with said controller for processing said encoded data information by performing thereon at least one operation amongst operations including encryption, decryption, data manipulation and non-volatile storage,

said processed encoded data information providing a secure transaction when transmitted within the computer system, and when decrypted and decoded for use at a remote location.

- 2. The device of claim 1 configured as a secure mouse device.
- The device of claim 1 configured as a secure mouse device wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data.
- 4. The device of claim 1 configured as a secure mouse device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data received via asynchronous communication means.
- The device of claim 1 configured as a secure mouse device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data received via computer bus signals transferred through a mouse interface card.
- 6. The device of claim 1 configured as a secure mouse device having a mini-keypad for entry of data.

7.	Deleted

8. Deleted
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- 9. Deleted
- 10. Deleted
- 11. Deleted
- 12. The device of claim 1 wherein said single integrated device includes an internal EEPROM memory as an integral part of said device, which stores secure information.
- The device of claim 1 wherein said single integrated device includes secure, protected encryption keys and data as an internal and integral non-removable element.
- 14. The device of claim 1 wherein said single integrated device further comprises a secure command interpreter which operates to manipulate commands.
- The device of claim 1 wherein said single integrated device is capable of preventing unauthorized use of software programs.
- 16. Deleted
- 17. Deleted
- 18. Deleted.
- 19. Deleted
- 20. Deleted
- 21. Deleted
- A method of providing secure data entry in a computer system, said method comprising the steps of:

performing at least one of entry, collection and reading of data information via a standard data entry device configured as a secure keyboard device;

PCT/1199/00504 1PEA/ 01 DEC 2000

encoding said data information within said standard data entry device for presentation to the computer system, and

processing, within said standard data entry device, said encoded data information by performing thereon at least one operation amongst operations including encryption, decryption, data manipulation and non-volatile storage,

said processed encoded data information providing a secure transaction when transmitted within the computer system, and when decrypted and decoded for use at a remote location,

wherein said encoding step is performed by a keyboard encoder and said processing step is performed by an electronic device capable of encrypting/decrypting and storing data entered via said keyboard,

wherein said keyboard encoder and said electronic device comprise a single integrated device, and

wherein said single integrated device does not use removable media such as a Smartcard, security token and the like

- 23. Deleted.
- 24. Deleted.

## PATENT COOPERATION TREATY

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: EDWARD LANGER
POB 412
RAANANA 43103
ISRAEL

## **PCT**

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing (day/month/year)

26 FEB 2001

Applicant's or agent's file reference

1063

IMPORTANT NOTIFICATION

International application No.

PCT/IL99/00504

16 SEPTEMBER 1999

Priority Date (day/month/year)

**17 SEPTEMBER 1998** 

Applicant

REDLER, YESHAYAHU

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

International filing date (day/month/year)

- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to\_prepare and furnish such\_translation\_directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

ROBERT W. BEAUSOLIEL JR

Telephone No. (703) 308-7090

Peggy Hanco

Form PCT/IPEA/416 (July 1992)\*

## PATENT COOPERATION TREATY

# **PCT**

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day/ma	onth/year) Priority date (day/month/year)
PCT/IL99/00504	16 SEPTEMBER 1999	17 SEPTEMBER 1998
International Patent Classification (IPC) IPC(7): G06F 12/14 and US Cl.: 7	or national classification and IPC 13/200	
Applicant REDLER, YESHAYAHU		
This international prelimi     Examining Authority and i  This REPORT consists of	s transmitted to the applicant a	been prepared by this International Preliminary coording to Article 36.
This report is also acco been amended and are (see Rule 70.16 and Se	mpanied by ANNEXES, i.e., shee the basis for this report and/or she ection 607 of the Administrative	ts of the description, claims and/or drawings which have tets containing rectifications made before this Authority. Instructions under the PCT).
These annexes consist of a	total of sheets.	
3. This report contains indicati	ons relating to the following it	ems:
I 👿 Basis of the rep	port	
II Priority		
	and of remort with regard to no	velty, inventive step or industrial applicability
السبا		verty, inventive step of industrial approachity
IV Lack of unity of		
V X Reasoned statem citations and exp	ent under Article 35(2) with regolanations supporting such staten	ard to novelty, inventive step or industrial applicability; sent
VI Certain documen	ts cited	
VII Certain defects in	the international application	
VIII———-Certain-observati	ons_on_the_international_applicat	on
	•	
Date of submission of the demand	Date	of completion of this report
13 APRIL 2000	C	I DECEMBER 2000
Name and mailing address of the IPE	A/US Auth	orized officer
Commissioner of Patents and Tra Box PCT	demarks	Robert W. Beausoliel Jr leggy and
Washington, D.C. 20231		· · · · · · · · · · · · · · · · · · ·
Faccimile No. (703) 305-3718	1 1 616	phone No. (703) 308-7090

Facsimile No. (703) 305-3718

nternational	application i	No.
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#### PCT/IL99/00504

1. Basis of the report	
1. With regard to the elements of the international application:*	
the international application as originally filed	
x the description:	
pages (See Attached)	, as originally filed
pages	
pages, filed with the letter of	
x the claims: pages (See Attached)	
pages, as amended (together with an	
pages, as amended (together with an	•
pages, filed with the letter of	
. 0	
X the drawings:	
pages (See Attached)	
pages	, filed with the demand
pages, filed with the letter of	
X the sequence listing part of the description:	
pages (See Attached)	. as originally filed
pages	
pages, filed with the letter of	
<ol> <li>With regard to the language, all the elements marked above were available or furnished to this the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search the language of publication of the international application (under Rule 48.3(t) the language of the translation furnished for the purposes of international preliminary or 55.3).</li> </ol>	which is: (under Rule 23.1(b)).
3. With regard to any nucleotide and/or amino acid sequence disclosed in the internatio preliminary examination was carried out on the basis of the sequence listing:	nal application, the international
contained in the international application in printed form.	
filed together with the international application in computer readable form.	
furnished subsequently to this Authority in written form.	
furnished subsequently to this Authority in computer readable form.	<u> </u>
The statement that the subsequently furnished written sequence listing does not go international application as filed has been furnished.	beyond the disclosure in the
The statement that the information recorded in computer readable form is identical to been furnished.	the writen sequence listing has
4. X The amendments have resulted in the cancellation of:	
X the description, pages NONE	
X the claims, Nos. 23	
X the drawings, sheets/fig NONE	
5. This report has been drawn as if (some of) the amendments had not been made, since t	hey have been considered to go
beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	ne, have been considered to go
* Replacement sheets which have been furnished to the receiving Office in response to an invitation in this report as "originally filed" and are not annexed to this report since they do not contain and 70.17).	
**Any replacement sheet containing such amendments must be referred to under item 1 and	d annexed to this report.

International application No.

PCT/IL99/00504

statement			
Novelty (N)	Claims	1, 12-15, 22	Y
, ,	Claims	NONE	N
Inventive Step (IS)	Claims	1, 12-15, 22	_ Y
	Claims	NONE	_ N
T. I. A. S. B. A. D. B. D. A. ZEAN	Claims	1, 12-15, 22	Y
Industrial Applicability (IA)	Claims	1, 12-13, 22 NONE	— и — і
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sitations and aunionations (Pula	70.7)		_
citations and explanations (Rule		iala 22/20 (A) haaansa dha miaa and disa mad daash an Grinl	
Claims 1, 12=15 and 22 meet the criteria set suggest a secure keyboard single integrated		icle 33(2)-(4), because the prior art does not teach or fairly without removable media.	<b>y</b> .
Claims 2-11 and 16-21 have been deleted.			
Claims 2-11 and 10-21 have been deleted.			
NEW CITATIONS			
NONE			
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International application No.

PCT/IL99/00504

#### Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

#### I. BASIS OF REPORT:

This report has been drawn on the basis of the description, page(s) 1-19, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the claims, page(s) NONE, as originally filed.

page(s) NONE, as amended under Article 19.

page(s) NONE, filed with the demand.

and additional amendments:

Claim PAGES 20-22, filed with the letter of 01 December 2000

This report has been drawn on the basis of the drawings, page(s) 1-8, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the sequence listing part of the description: page(s) NONE, as originally filed.
pages(s) NONE, filed with the demand.
and additional amendments:
NONE

WO 00/17758

CLAIMS:

1. A secure data entry peripheral device in a computer system, said device comprising:

means for at least one of entry, collection and reading of data information; controller means for encoding said data information for presentation to the computer system, and

means associated with said controller for processing said encoded data information by performing thereon at least one operation amongst operations including encryption, decryption, data manipulation and non-volatile storage,

said processed encoded data information providing a secure transaction when transmitted within the computer system, and when decrypted and decoded for use at a remote location.

- 2. The device of claim 1 configured as a secure mouse device.
- 3. The device of claim 1 configured as a secure mouse device wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data.
- 4. The device of claim 1 configured as a secure mouse device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data received via asynchronous communication means.
- The device of claim 1 configured as a secure mouse device; wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data received via computer bus signals transferred through a mouse interface card.
- 6. The device of claim 1 configured as a secure mouse device having a mini-keypad for entry of data.

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7. The device of claim 1 configured as a secure mouse device wherein said controller means is a mouse encoder and said processing means comprises an electronic device capable of encrypting/decrypting and storing data entered via said mouse, and wherein said mouse encoder and said electronic device comprise a single integrated device.

- 8. The device of claim 7 wherein said single integrated device further comprises a secure command interpreter which operates to manipulate commands.
- 9. The device of claim 7 wherein said single integrated device is capable of preventing unauthorized use of software programs.
- 10. The device of claim 1 configured as a secure keyboard device, wherein said controller means is a keyboard encoder and said processing means comprises an electronic device capable of encrypting/decrypting and storing data entered via said keyboard, and wherein said keyboard encoder and said electronic device comprise a single integrated device.
- 11. The device of claim 10 wherein said single integrated device does not use removable media such as a Smartcard, security token and the like.
- 12. The device of claim 10 wherein said single integrated device includes an internal EEPROM memory as an integral part of said device, which stores secure information.
- 13. The device of claim 10 wherein said single integrated device includes secure, protected encryption keys and data as an internal and integral non-removable element.
- 14. The device of claim 10 wherein said single integrated device further comprises a secure command interpreter which operates to manipulate commands.

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15. The device of claim 10 wherein said single integrated device capable of preventing unauthorized use of software programs.

- 16. The device of claim 1 configured as a secure voice recognition device, wherein said processing means comprises an electronic device capable of encrypting/decrypting analog data entered via a microphone.
- 17. The device of claim 1 configured as a secure voice recognition device, wherein said processing means comprises an electronic device capable of encrypting/decrypting data received via at least one of synchronous and asynchronous communication signals, serial clock and data signals, and computer bus signals.
- 18. The device of claim 1 configured as a secure voice recognition device including an interface to a Smartcard component as an integral part of the device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data via an algorithm contained on said Smartcard.
- 19. The device of claim 1 configured as a secure voice recognition device including an interface to a Smartcard component as an integral part of the device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data via said Smartcard..
- 20. The device of claim 1 configured as a secure voice recognition device including an interface to a Smartcard component as an integral part of the device, wherein said processing means comprises an electronic device capable of encrypting/decrypting and storing data via manipulation of commands in a command interpreter on said Smartcard.
- 21. The device of claim 1 configured as a secure voice recognition device including an interface to a Smartcard component as an integral part of the device,

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wherein said processing means comprises an electronic device capable of preventing unauthorized use of software programs.

22. A method of providing secure data entry in a computer system, said method comprising the steps of:

performing at least one of entry, collection and reading of data information via a standard data entry device including a computer mouse, keyboard, voice system and the like:

encoding said data information within said standard data entry device for presentation to the computer system, and

processing, within said standard data entry device, said encoded data information by performing thereon at least one operation amongst operations including encryption, decryption, data manipulation and non-volatile storage,

said processed encoded data information providing a secure transaction when transmitted within the computer system, and when decrypted and decoded for use at a remote location.

- 23. A secure data entry peripheral device in a computer system, substantially as described herein by way of example and with reference to the drawings.
- 24. A method of providing secure data entry in a computer system, substantially as described herein by way of example and with reference to the drawings.

## PATENT COOPERATION TREATY

# **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1063		Transmittal of International Search Report ) as well as, where applicable, item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/IL99/00504	16 SEPTEMBER 1999	17 SEPTEMBER 1998
Applicant REDLER, YESHAYAHU		
•	en prepared by this International Searching Auting transmitted to the International Bureau.	hority and is transmitted to the applicant
4	copy of each prior art document cited in this r	eport.
1. X Certain claims were found	l unsearchable (See Box 1).	
2. Unity of invention is lack	ing (See Box II).	
	on contains disclosure of a nucleotide and/or ried out on the basis of the sequence listing	amino acid sequence listing and the
	filed with the international application.	
	furnished by the applicant separately from the	international application,
		ent to the effect that it did not include matter he international application as filed.
	transcribed by this Authority.	пе шетавола аррисачен аз печ.
4. With regard to the title, X	the text is approved as submitted by the appli	cant.
	the text has been established by this Authority	to read as follows:
	• • •	
5 With regard to the abstract,		
	the text is approved as submitted by the appli	cant.
×	the text has been established, according to Ru in Box III. The applicant may, within one international search report, submit comments	le 38.2(b), by this Authority as it appears month from the date of mailing of this
6. The figure of the drawings to be	published with the abstract is:	
Figure No. 2	as suggested by the applicant.	None of the figures.
X	because the applicant failed to suggest a figu	
	because this figure better characterizes the in	vention.
<u> </u>		·

Form PCT/ISA/210 (first sheet)(July 1992)\*

International application No. PCT/IL99/00504

Box 1 Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. X Claims Nos.: 23 and 24 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  the specific invention claimed by each of claims 23 and 24 is unclear. See PCT rule 5.
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all scarchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
No required additional scarch fees were timely paid by the applicant. Consequently, this international scarch report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

International application No. PCT/IL99/00504

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The abstract is too long (PCT Rule 8.1(b)). The abstract must be less than 150 words, or 200 words when no Figure is to be published.

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

#### **NEW ABSTRACT**

A secure data entry peripheral device in a computer system featuring an encryption technique integrated within the device itself, and not by other means, so that each transmission of data from the peripheral device is already encrypted, giving it a high level of security with its initial transmission. Encryption on the proposed single chip microprocessor is completely secure because the 'Keyboard', 'Data entry' or 'Analog voice' encoding and encryption are on the same chip by storing encryption keys and secure data in EEPROM memory (31). There is no opportunity for external interference, which could compromise the integrity of the data enabling maintenance of a high security level. The device can be applied to a keyboard, computer mouse or voice recognition circuit used as data entry devices. Since each device utilizes a microcontroller (25) in its standard configuration, the encryption technique of the present invention can be applied easily and efficiently.

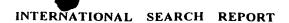
Form PCT/ISA/210 (continuation of first sheet(2))(July 1992)\*

International application No. PCT/IL99/00504

			· · · · · · · · · · · · · · · · · · ·		
	SSIFICATION OF SUBJECT MATTER : G06F 12/14				
` '	: G06F 12/14 : 713/200				
	o International Patent Classification (IPC) or to both r	national classification and IPC			
B. FIEL	DS SEARCHED				
Minimum d	ocumentation searched (classification system followed	by classification symbols)			
U.S. :	713/200, 201, 202				
Documentat	tion searched other than minimum documentation to the	extent that such documents are included	in the fields searched		
Electronic d	lata base consulted during the international search (na	me of data base and, where practicable.	, search terms used)		
	e Extra Sheet.				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT				
·i					
Category*	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.		
X,E	US 5,987,155 A (DUNN et al.) 16 No	vember 1999, col. 6, line 3 -	1,16-20, 22		
Y,E	col. 7, line 2.		2-15,21		
- ,					
Y	Secure Mouse for Internet. IBM tech	. dis. bull. December 1997.	2-9		
	Vol 40. No. 12.				
	page 27				
Y	US 5,596,718 A (BOEBERT et al.) 21 January 1997, col 4 line 27 - 9,15,21				
-	col 6 line 13				
Y			1-22		
line 43					
	ther documents are listed in the continuation of Part C	See notes Comition			
X Further documents are listed in the continuation of Box C. See patent family annex.					
* Special entegories of cited documents:  *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand document defining the general state of the art which is not considered to the principle or theory underlying the invention.					
to be of particular relevance					
*E* earlier document published on or after the international filing date  *L* document which may throw doubts on priority claim(s) or which is  **Considered novel or cannot be considered when the document is taken alone					
cited to establish the publication date of another citation or other special reason (as specified)  "Y" document of particular relevance; the claim					
"()" document referring to an oral disclosure, use, exhibition or other means considered to involve an inventive step when the document combined with one or more other such documents, such combination being obvious to a person skilled in the art			h documents, such combination		
	*P* document published prior to the international filing date but later than *&* document member of the same patent family the priority date claimed				
Date of the	Date of the actual completion of the international search  Date of mailing of the international search report				
13 JANUARY 2000 14 FEB 2000					
Name and mailing address of the ISA/US Authorized officer					
Commissioner of Patents and Trademarks Box PCT Weshington D.C. 20221 Joseph Palys					
	Washington, D.C. 20231 Facsimile No. (703) 305-3230 Telephone No. (703) 308-7090				
1	the state of the s	1 2			

International application No. PCT/IL99/00504

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
<del> </del>		
<b>·</b>	US 5,745,055 A (REDLICH et al.) 28 April 1998, col. 5, line 51 - col. 6 line 11	7
Ý	US 5,809,143 A (HUGHES) 15 September 1998, col. 2 line 51 - col. 12 line 18	1-22
Y	US 5,748,888 A (ANGELO et al.) 05 May 1998, col. 3 line 33 - col. 8 line 67	11
Y	US 5,742,758 A (DUNHAM et al.) 21 April 1998, col. 7 line 3 - col. 8 line 52	12
Υ .	US 5,359,660 A (CLARK et al.) 25 October 1994, col. 3 lines_3- 26	13
Y	US 5,305,384 A (ASHBY et al.) 19 April 1994, col. 9 line 56 - col. 15 line 68	16-21
	·	
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International application No. PCT/IL99/00504

1	13	5	FI	De	SEA	D	TI	ED

Electronic data bases consulted (Name of data base and where practicable terms used):

IBM Technical Disclosure Bulletin, IEEE electronic library search terms: secure mouse

WEST

search terms: secure mouse, secure keyboard, voice recognition, smart card, non-volatile memory, security, encode, encrypt, decrypt, data manipulation, process, peripheral, asynchronous

Form PCT/ISA/210 (extra sheet)(July 1992)★

International application No. PCT/IL99/00504

A. CLASSIFICATION OF SUBJECT MATTER  IPC(6) : G06F 12/14 US CL : 713/200 According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED  Minimum documentation searched (classification system followed by classification symbols) U.S. : 713/200, 201, 202  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched						
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  Please See Extra Sheet.						
C. DOC	UMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.			
X,E	US 5,987,155 A (DUNN et al.) 16 No	vember 1999, col. 6, line 3 -	1,16-20, 22			
Y,E	col. 7, line 2.		2-15,21			
Y	Secure Mouse for Internet. IBM tech Vol 40. No. 12. page 27	2-9				
Y	US 5,596,718 A (BOEBERT et al.) 21 col 6 line 13	9,15,21				
Y	US 5,605,406 A (BOWEN) 25 Februar line 43	1-22				
X Further documents are listed in the continuation of Box C. See patent family annex.						
*A* do	pecial categories of cited documents:  cument defining the general state of the art which is not considered be of particular relevance	*T* later document published after the inter- date and not in conflict with the appl the principle or theory underlying the	ication but cited to understand invention			
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other		"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone				
*Y*  *O*  document referring to an oral disclosure, use, exhibition or other means		"Y" document of particular relevance; the considered to involve an inventive combined with one or more other such being obvious to a person skilled in t	step when the document is hocuments, such combination			
	ocument published prior to the international filing date but later than e priority date claimed	*&* document member of the same patent	t family			
Date of the	actual completion of the international search ARY 2000	Date of mailing of the international sea 14 FEB 2000	•			
Commission Box PCT	mailing address of the ISA/US oner of Patents and Trademarks on, D.C. 20231 No. (703) 305-3230	Authorized officer  Joseph Palys  Telephone No. (703) 308-7090	Hill			

International application No.
PCT/IL99/00504

C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the releva	nt passages	Relevant to claim No.
Y	US 5,745,055 A (REDLICH et al.) 28 April 1998, col. col. 6 line 11	5, line 51 -	7
Y	US 5,809,143 A (HUGHES) 15 September 1998, col. 2 col. 12 line 18	line 51 -	1-22
Y	US 5,748,888 A (ANGELO et al.) 05 May 1998, col. 3 col. 8 line 67	line 33 -	11
Y	US 5,742,758 A (DUNHAM et al.) 21 April 1998, col. col. 8 line 52	7 line 3 -	12
Y	US 5,359,660 A (CLARK et al.) 25 October 1994, col. 26	3 lines 3-	13
Y	US 5,305,384 A (ASHBY et al.) 19 April 1994, col. 9 col. 15 line 68	line 56 -	16-21

International application No. PCT/IL99/00504

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)				
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:				
2. X Claims Nos.: 23 and 24 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  the specific invention claimed by each of claims 23 and 24 is unclear. See PCT rule 5.				
Claims Nos.:  because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).				
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)				
This International Searching Authority found multiple inventions in this international application, as follows:				
·				
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.				
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.				
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:				
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:				
Remark on Protest  The additional search fees were accompanied by the applicant's protest.				
No protest accompanied the payment of additional search fees.				

International application No. PCT/ILy9/00504

B. FIELDS SEARCHED  Electronic data bases consulted (Name of data base and where practicable terms used):					
IBM Technical Disclosure Bulletin, IEEE electronic library search terms: secure mouse WEST search terms: secure mouse, secure keyboard, voice recognition, smart card, non-volatile memory, security, encode, encrypt, decrypt, data manipulation, process, peripheral, asynchronous					

## PATENT COOPERATION TREATY

## **PCT**

# NOTIFICATION CONCERNING AMENDMENTS OF THE CLAIMS

(PCT Rule 62 and Administrative Instructions, Section 417)

### From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents United States Patent and Trademark Office Box PCT Washington, D.C.20231 ETATS-UNIS D'AMERIQUE

in its capacity as International Preliminary Examining Authority

Date of mailing (day/month/year) 31 May 2000 (31.05.00)

International application No. PCT/IL99/00504

International filing date (day/month/year)

16 September 1999 (16.09.99)

Applicant\_

REDLER, Yeshayahu

The International Bureau hereby informs the International Preliminary Examining Authority that no amendments under Article 19 have been received by the International Bureau (Administrative Instructions, Section 417).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

Claudio Borton

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

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